COLORADO DISCHARGE PERMIT SYSTEM (CDPS)
FACT SHEET FOR PERMIT NUMBER CO0044903
TOWN OF HOTCHKISS WWTF
DELTA COUNTY

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I. TYPE OF PERMIT

A. Permit Type: Domestic - Minor Municipal, Lagoon System, Second Renewal

B. Discharge To: Surface Water and Ditch

II. FACILITY INFORMATION

A. SIC Code: 4952 Sewerage Systems

B. Facility Classification: Class D per Section 100.5.2 of the Water and Wastewater Facility Operator Certification Requirements

C. Facility Location: 38.787660° Latitude, -107.735184° Longitude

D. Permitted Feature: 001A, following disinfectionand the V-notch weir but prior to entering the irrigation ditch, 38° 47' 15.576" N, 107° 44' 6.6624" W
001B, following disinfection and prior to mixing with the receiving stream, 38° 47' 15.576" N, 107° 44' 6.6624" W

The location(s) provided above will serve as the point(s) of compliance for this permit and are appropriate as they are located after all treatment and prior to discharge to the receiving water.

E. Facility Flows: 0.494 MGD

F. Major Changes From Last Renewal:

There are no major changes from the current permit. A Selenium (Se) Total Maximum Daily Load (TMDL) was completed and approved by the United States Environmental Protection Agency (EPA) in 2011 and therefore the Colorado Water Quality Control Division (Division) needed to evaluate Se in this permit renewal. Total Inorganic Nitrogen (T.I.N.) was included in this renewal to protect an identified water supply use. Note, the Hotchkiss facility originally discharged under CDPS permit CO0021245.

III. RECEIVING STREAM

A. Waterbody Identification: *COGUNF03, the North Fork of the Gunnison River*

B. Water Quality Assessment:

An assessment of the stream standards, low flow data, and ambient stream data has been performed to determine the assimilative capacities for *the North Fork of the Gunnison River* for potential pollutants of concern. This information, which is contained in the Water Quality Assessment (WQA) for this receiving stream(s), also includes an antidegradation review, where appropriate. The Division's Permits Section has reviewed the assimilative capacities to determine the appropriate WQBELs as well as potential limits based on the antidegradation evaluation, where applicable. The limitations based on the assessment and other evaluations conducted as part of this fact sheet can be found in Part I.A of the permit.

Permitted Feature *001B* will be the authorized discharge point to the receiving stream. Permitted Feature *001A* will be the authorized discharge point to the irrigation ditch.

IV. FACILITY DESCRIPTION

A. Infiltration/Inflow (I/I)

The Town of Hotchkiss has extensive infiltration and inflow (I/I) issues (30-day average flow to facility exceeds 120 gallons/capita-day) and previously submitted an I/I study in 1995 which demonstrated it was less expensive to treat the additional flow than to remove it. The Town continues to evaluate their system and correct I/I problems when encountered. The Division has granted a waiver to the 85% TSS removal requirement in the past and will continue with this permit renewal. See Section VI.B. for further discussion on the BOD 85% removal waiver.

B. Lift Stations

Table IV-1 summarizes the information provided in the renewal application for the lift stations in the service area.

Table IV-1 – Lift Station Summary

Station Name/#	Firm Pump Capacity (gpm)	Peak Flows (gpd)	% Capacity (based on peak flow)
Lift Station 1	2 pumps at 825 1 pump at 200	600,000	50%

C. Chemical Usage

The permittee stated in the application that they utilize one chemical in their treatment process. The MSDS sheets have been reviewed and the following chemicals have been approved for use and are summarized in the following table.

Table IV-2 – Chemical Additives

Chemical Name	Purpose	Constituents of Concern
Chlorine Gas	*Disinfection*	*Chlorine*

Chemicals deemed acceptable for use in waters that will or may be discharged to waters of the State are acceptable only when used in accordance with all state and federal regulations, and in strict accordance with the manufacturer's site-specific instructions.

D. Treatment Facility, Facility Modifications and Capacities

The facility consists of headworks (composed of bar screen, influent flow measuring and lift station), two aerated lagoons, a polishing pond, chlorine contact chamber, effluent flow monitoring and dechlorination. The facility includes an anaerobic pit in the upper section of the first cell. The permittee has not performed any construction or upgrades at this facility that would change the hydraulic capacity of 0.494 MGD or the organic capacity of 500 lbs BOD_5/day, which were specified in Site Approval 4256. That document should be referred to for any additional information.

Pursuant to Section 100.5.2 of the Water and Wastewater Facility Operator Certification Requirements, this facility will require a Class D certified operator.

E. Sludge Treatment and Disposal

Since the treatment facility consists of aerated lagoons, sludge removal will probably be infrequent (once every 5 to 10 years) and only take place if the ponds are drained and cleaned. If sludge is removed from the lagoons for any reason, it must be disposed of in accordance with local, State and Federal regulations.

EPA Region 8 issued a General Permit (effective October 19, 2007) for Colorado facilities whose operations generate, treat, and/or use/dispose of sewage sludge by means of land application, landfill, and surface disposal under the National Pollutant Discharge Elimination System. All Colorado facilities are required to apply for and to obtain coverage under the EPA General Permit.

V. PERFORMANCE HISTORY

A. Monitoring Data

Discharge Monitoring Reports – The following tables summarize the effluent data reported on the Discharge Monitoring Reports (DMRs) for the previous permit term, from February 1, 2006 through February 28, 2013.

Table V-1 – Summary of DMR Data for Permitted Feature 001B

Parameter	*# Samples or Reporting Periods*	*Reported Average Concentrations Avg/Min/Max*	*Reported Maximum Concentrations Avg/Min/Max*	*Previous Avg/Max/AD Permit Limit*	*Number of Limit Excursions*
Influent Flow (MGD)	*85*	*0.21/0.11/0.38*	*0.25/0.13/0.53*	*Report/Report*	
Effluent Flow (MGD)	*85*	*0.19/0.065/0.41*	*0.27/0.09/0.83*	*0.494/NA*	***
pH (su)	*85*	*7.8/7.1/8.5*	*8.4/7.9/9.1*	*6.5 – 9.0*	*1*
*E. coli (#/100 ml)***	*84*	*4/<10/866*	*4/<10/866*	*2000/4000*	
TRC (mg/l)	*85*	*0.17/0.08/0.33*	*0.27/0.14/0.48*	*0.4/0.5*	
NH3 as N, Tot (mg/l) Jan	*7*	*5.3/0.04/13*	*5.3/0.04/13*	*30/Report*	
NH3 as N, Tot (mg/l) Feb	*8*	*9/2.2/21*	*9/2.2/21*	*28/Report*	
NH3 as N, Tot (mg/l) Mar	*7*	*7.8/0.53/14*	*7.8/0.53/14*	*25/Report*	
NH3 as N, Tot (mg/l) Apr	*7*	*4.2/0.06/13*	*4.2/0.06/13*	*25/Report*	
NH3 as N, Tot (mg/l) May	*7*	*3.6/0.05/16*	*4.2/0.05/16*	*15/Report*	*1*
NH3 as N, Tot (mg/l) Jun	*7*	*6.9/0.2/14*	*9.8/0.25/24*	*7/Report*	*1*
NH3 as N, Tot (mg/l) Jul	*7*	*4.8/0.17/11*	*6.5/0.39/18*	*7/Report*	*1*
NH3 as N, Tot (mg/l) Aug	*7*	*3.4/0.52/8.6*	*4.8/0.69/9.6*	*7/Report*	
NH3 as N, Tot (mg/l) Sep	*7*	*2.8/0.33/6.6*	*4.7/0.33/15*	*8/Report*	
NH3 as N, Tot (mg/l) Oct	*7*	*3.5/0.25/8.1*	*6.1/0.25/17*	*11/Report*	
NH3 as N, Tot (mg/l) Nov	*7*	*2.1/0.09/6.1*	*2.1/0.09/6.1*	*15/Report*	
NH3 as N, Tot (mg/l) Dec	*7*	*2.4/0.05/5.4*	*2.4/0.05/5.4*	*30/Report*	
BOD5, influent (mg/l)	*85*	*126/28/296*	*126/28/296*	*NA/NA/*	
BOD5, influent (lbs/day)	*85*	*192/73/421*	*190/73/421*	*NA/NA/*	
BOD5, effluent (mg/l)	*77*	*13/1/101*	*13/1/101*	*30/45/*	*2*
BOD5, effluent (lbs/day)	*62*	*17/1.2/76*	*NA/NA/NA*	*123.5/NA/*	
TSS (mg/l)	*50*	*15/2/49*	*15/2/49*	*NA/NA/*	
TSS, influent (mg/l)	*85*	*123/27/1106*	*123/27/1106*	*NA/NA/*	
TSS, effluent (mg/l)	*50*	*15/2/49*	*15/2/49*	*75/110/*	
Oil and Grease (mg/l)	*49*	*NA/NA/NA*	*0/0/0*	*NA/10/*	
TDS PWS intake (mg/l)	*28*	*250/132/775*	*282/132/815*	*NA/NA/*	
TDS WWTF effluent (mg/l)	*28*	*1171/117/1506*	*1225/1010/1542*	*NA/NA/*	

The pH data shows the minimum reported values in the "average" column, and the maximum reported values in the "maximum column
**The Effluent Flow data shows 0 excursions from the design capacity of the facility; however, the combined totals from outfalls 001A and 001B would have exceeded the total design capacity of 0.494 MGD; however, the current permit did not explicitly limit the combined total to 0.494 MGD but rather to the individual outfalls.*
*** Geometric mean*
NA means Not Applicable

Table V-2 – Summary of DMR Data for Permitted Feature 001A

Parameter	*# Samples or Reporting Periods*	*Reported Average Concentrations Avg/Min/Max*	*Reported Maximum Concentrations Avg/Min/Max*	*Previous Avg/Max/AD Permit Limit*	*Number of Limit Excursions*
Effluent Flow (MGD)	*37*	*0.12/0.006/0.57*	*0.21/0.065/0.41*	*0.494/NA*	
pH (su)	*37*	*7.7/7.2/8.2*	*8.3/8/9.1*	*6.0 – 9.0*	*1*
*E. coli (#/100 ml)***	*28*	*3.2/<10/172*	*3.2/<10/172*	*2000/4000*	
BOD5, effluent (mg/l)	*37*	*15/2/101*	*15/2/101*	*30/45/*	*2*
BOD5, effluent (lbs/day)	*37*	*16/0.2/100*	*NA/NA/NA*	*123.5/NA/*	
TSS, effluent (mg/l)	*37*	*15/2/49*	*15/2/49*	*75/110/*	
Oil and Grease (mg/l)	*35*	*NA/NA/NA*	*0/0/0*	*NA/10/*	
TDS WWTF effluent (mg/l)	*13*	*1186/999/1406*	*1197/1010/1406*	*Report*	

The pH data shows the minimum reported values in the "average" column, and the maximum reported values in the "maximum column
*** Geometric mean*
NA means Not Applicable

B. Compliance With Terms and Conditions of Previous Permit

1. Effluent Limitations –The data shown in Tables V-1 and V-2 indicate apparent violations of the permit. There was one excursion in February 2006 of the pH limit of 9.0 with a value of 9.07 for both Outfall 001A and 001B. The total ammonia limit for Outfall 001B was exceeded three times as follows:

   July 2008 flow tier of 0.288 MGD < flow ≤ 0.494 MGD; limit of 7 mg/l with value of 7.85 mg/l.
   June 2009 flow tier of 0.23 MGD < flow ≤ 0.288 MGD; limit of 12 mg/l with a value of 12.37 mg/l.
   May 2010 limit of 15 mg/l with a value of 16 mg/l.

   There were two violations of the Outfall 001B BOD_5 effluent limit, both acute (30 mg/l limit) and chronic (45 mg/l limit) in May 2010 of 101 mg/l and in July 2010 of 62 mg/l. The May 2010 excursion of 101 mg/L was also reported at Outfall 001A. It should be noted that the Town of Hotchkiss has provided information during the public notice of the draft permit demonstrating errors were made in their reporting of BOD influent data. Laboratory analysis results verify that for the above BOD violations, the BOD influent data was reported as BOD effluent data on the DMRs.

   In accordance with 40 CFR Part 122.41(a), any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

2. Other Permit Requirements – The permittee has been in compliance with all other aspects of the previous permit.

VI. DISCUSSION OF EFFLUENT LIMITATIONS

A. Regulatory Basis for Limitations

1. Technology Based Limitations

a. Federal Effluent Limitation Guidelines – The Federal Effluent Limitation Guidelines for domestic wastewater treatment facilities are the secondary treatment standards. These standards have been adopted into, and are applied out of, Regulation 62, the Regulations for Effluent Limitations.

b. Regulation 62: Regulations for Effluent Limitations – These Regulations include effluent limitations that apply to all discharges of wastewater to State waters and are shown in Section VIII of the WQA. These regulations are applicable to the discharge from the Town of Hotchkiss WWTF.

2. Numeric Water Quality Standards - The WQA contains the evaluation of pollutants limited by water quality standards. The mass balance equation shown in Section VI of the WQA was used for most pollutants to calculate the potential WQBELs, M_2, that could be discharged without causing the water quality standard to be violated. For ammonia, the AMMTOX Model was used to determine the maximum assimilative capacity of the receiving stream. A detailed discussion of the calculations for the maximum allowable concentrations for the relevant parameters of concern is provided in Section VI of the WQA developed for this permitting action.

   The maximum allowable pollutant concentrations determined as part of these calculations represent the calculated effluent limits that would be protective of water quality. These are also known as the WQBELs. Both acute and chronic WQBELs may be calculated based on acute and chronic standards, and these may be applied as daily maximum (acute) or 30-day average (chronic) limits.

3. Narrative Water Quality Standards - Section 31.11(1)(a)(iv) of The Basic Standards and Methodologies for Surface Waters (Regulation No. 31) includes the narrative standard that State surface waters shall be free of substances that are harmful to the beneficial uses or toxic to humans, animals, plants, or aquatic life.

   Whole Effluent Toxicity - The Water Quality Control Division has established the use of WET testing as a method for identifying and controlling toxic discharges from wastewater treatment facilities. WET testing is being utilized as a means to ensure that there are no discharges of pollutants "in amounts, concentrations or combinations which are harmful to the beneficial uses or toxic to humans, animals, plants, or aquatic life" as required by Section 31.11 (1) of the Basic Standards and Methodologies for Surface Waters. The requirements for WET testing are being implemented in accordance with Division policy, Implementation of the Narrative Standard for Toxicity in Discharge Permits Using Whole Effluent Toxicity (Sept 30, 2010). Note that this policy has recently been updated and the permittee should refer to this document for additional information regarding WET.

4. Water Quality Regulations, Policies, and Guidance Documents

   a. Antidegradation - Since the receiving water is Undesignated, an antidegradation review is required pursuant to Section 31.8 of The Basic Standards and Methodologies for Surface Water. Reviews are conducted in accordance with the Division's Antidegradation Significance Determination for New or Increased Water Quality Impacts Guidance (AD Guidance). As set forth in Section VII of the WQA, an antidegradation evaluation was conducted for pollutants when water quality impacts occurred and when the impacts were significant. Based on the antidegradation requirements and the reasonable potential analysis discussed below, antidegradation-based limits may be applied.

According to Division procedures, the facility has three options related to antidegradation-based effluent limits: (1) the facility may accept antidegradation-based average concentrations (ADBACs) as permit limits (see Section VII of the WQA); (2) the facility may select permit limits based on their non-impact limit (NIL), which would result in the facility not being subject to an antidegradation review and thus the antidegradation-based average concentrations would not apply (the NILs are also contained in Section VII of the WQA); or (3) the facility may complete an alternatives analysis as set forth in Section 31.8(3)(d) of the regulations which would result in alternative antidegradation-based effluent limitations (ADBELs).

The effluent must not cause or contribute to an exceedance of a water quality standard and therefore the WQBEL must be selected if it is lower than the NIL. Where the WQBEL is not the most restrictive, the discharger may choose between the NIL or the ADBAC: the NIL results in no increased water quality impact; the ADBAC results in an "insignificant" increase in water quality impact. The ADBAC and ADBEL limits are imposed as two-year average limits.

b. Antibacksliding – As the receiving water is undesignated or "reviewable", and the Division has performed an antidegradation evaluation, in accordance with the AD Guidance, the antibacksliding requirements in Regulation 61.10 have been met.

c. Determination of Total Maximum Daily Loads (TMDLs) – This fact sheet and the accompanying permit include a TMDL developed as specified in Total Maximum Daily Load Assessment, Gunnison River and Tributaries, Uncompahgre River and Tributaries, Delta/Mesa/Montrose Counties, Colorado (Gunnison Se TMDL) and the corresponding waste load allocations (WLAs) for Selenium (Se). As required under the Clean Water Act Section 303(d), these TMDLs have been submitted, through the normal public notification process, to EPA Region 8 for their review and approval, and were approved in February 2011. The WLA for the Town of Hotchkiss has been incorporated into this permitting action.

d. Colorado Mixing Zone Regulations – Pursuant to section 31.10 of The Basic Standards and Methodologies for Surface Water, a mixing zone determination is required for this permitting action. The Colorado Mixing Zone Implementation Guidance, dated April 2002, identifies the process for determining the meaningful limit on the area impacted by a discharge to surface water where standards may be exceeded (i.e., regulatory mixing zone). This guidance document provides for certain exclusions from further analysis under the regulation, based on site-specific conditions.

The guidance document provides a mandatory, stepwise decision-making process for determining if the permit limits will not be affected by this regulation. Exclusion, based on Extreme Mixing Ratios, may be granted if the ratio of the facility design flow to the chronic low flow (30E3) is greater than 2:1 or if the ratio of the chronic low flow to the design flow is greater than 20:1. Since the ratio of the chronic low flow to the design flow for this permitting action is 38:1 the permittee would typically be eligible for an exclusion from further reductions in assimilative capacity under the regulation.

However, as discussed in Section IV of the WQA, there is uncertainty regarding the exact classification of the receiving water of the immediate discharge from the Hotchkiss facility, with potential implications for the regulatory mixing zone. Thus, the Division is requiring a study as part of this permitting action to include a description of the characteristics of the receiving water

(a wetland adjacent to the River, a tributary to the River, or within the bankfull channel width of the River). The Division will reevaluate this issue in the future.

e. Salinity Regulations – In compliance with the Colorado River Salinity Standards, the Colorado Discharge Permit System Regulations, and the Division's Baseline Monitoring Frequency, Sample Type, and Reduced Monitoring Frequency Policy for the Industrial and Domestic Wastewater Treatment Facilities, the permittee shall monitor for total dissolved solids (TDS) on a quarterly basis. Samples shall be taken at Permitted Feature 001A and 001B.

An evaluation of the discharge of total dissolved solids indicates that the Town of Hotchkiss facility does not exceed the threshold of 1 ton/day or 350 tons/year of salinity. To determine the TDS loading from this facility, the average reported TDS values were multiplied by the average flow, then by 8.34. The average was determined to be 0.94 tons/day.

f. Reasonable Potential Analysis – Using the assimilative capacities contained in the WQA, an analysis must be performed to determine whether to include the calculated assimilative capacities as WQBELs in the permit. This reasonable potential (RP) analysis is based on the Determination of the Requirement to Include Water Quality Standards-Based Limits in CDPS Permits Based on Reasonable Potential, dated December, 2002. This guidance document utilizes both quantitative and qualitative approaches to establish RP depending on the amount of available data.

A qualitative determination of RP may be made where ancillary and/or additional treatment technologies are employed to reduce the concentrations of certain pollutants. Because it may be anticipated that the limits for a parameter could not be met without treatment, and the treatment is not coincidental to the movement of water through the facility, limits may be included to assure that treatment is maintained.

A qualitative RP determination may also be made where a federal effluent limitation guideline (ELG) exists for a parameter, and where the results of a quantitative analysis results in no RP. As the federal ELG is typically less stringent than a limitation based on the WQBELs, if the discharge was to contain concentrations at the ELG (above the WQBEL), the discharge may cause or contribute to an exceedance of a water quality standard.

To conduct a quantitative RP analysis, a minimum of 10 effluent data points from the previous 5 years, should be used. The equations set out in the guidance for normal and lognormal distribution, where applicable, are used to calculate the maximum estimated pollutant concentration (MEPC). For data sets with non-detect values, and where at least 30% of the data set was greater than the detection level, MDLWIN software is used consistent with Division guidance to generate the mean and standard deviation, which are then used to establish the multipliers used to calculate the MEPC. If the MDLWIN program cannot be used the Division's guidance prescribes the use of best professional judgment.

For some parameters, recent effluent data or an appropriate number of data points may not be available, or collected data may be in the wrong form (dissolved vs total) and therefore may not be available for use in conducting an RP analysis. Thus, consistent with Division procedures, monitoring will be required to collect samples to support a RP analysis and subsequent decisions for a numeric limit. A compliance schedule may be added to the permit to require the request of an RP analysis once the appropriate data have been collected.

For other parameters, effluent data may be available to conduct a quantitative analysis, and therefore an RP analysis will be conducted to determine if there is RP for the effluent discharge to cause or contribute to exceedances of ambient water quality standards. The guidance specifies that if the MEPC exceeds the maximum allowable pollutant concentration (MAPC), limits must be established and where the MEPC is greater than half the MAPC (but less than the MAPC), monitoring must be established. Table VI-1 contains the calculated MEPC compared to the corresponding MAPC, and the results of the reasonable potential evaluation, for those parameters that met the data requirements. The RP determination is discussed for each parameter in the text below.

Table VI-1 – Reasonable Potential Analysis

Parameter	30-Day Average			7-Day Ave or Daily Max		
	MEPC	WQBEL/ Existing Limit (MAPC)	Reasonable Potential	MEPC	WQBEL (MAPC)	Reasonable Potential
E. coli (#/100 ml)	2083	1920	Yes	2083	3840	Yes (Qual)
TRC (mg/l)	0.38	0.43	Yes (Qual)	0.5	0.57	Yes (Qual)
Total Inorganic Nitrogen (mg/l)	NA			NA	293	Yes (Qual)
NH3 as N, Tot (mg/l) Jan	13	26	Yes	13	40	Yes
NH3 as N, Tot (mg/l) Feb	21	26	Yes	21	40	Yes
NH3 as N, Tot (mg/l) Mar	14	23	Yes	14	40	Yes
NH3 as N, Tot (mg/l) Apr	13	25	Yes	13	40	Yes
NH3 as N, Tot (mg/l) May	16	15	Yes	16	35	Yes
NH3 as N, Tot (mg/l) Jun	14	7	Yes	24	30	Yes
NH3 as N, Tot (mg/l) Jul	11	7	Yes	18	33	Yes
NH3 as N, Tot (mg/l) Aug	8.6	7	Yes	9.6	34	Yes
NH3 as N, Tot (mg/l) Sep	6.6	8.5	Yes	15	32	Yes
NH3 as N, Tot (mg/l) Oct	8.1	11	Yes	17	28	Yes
NH3 as N, Tot (mg/l) Nov	6.1	15	Yes	6.1	40	Yes
NH3 as N, Tot (mg/l) Dec	5.4	26	Yes	5.4	38	Yes

B. Parameter Evaluation

BOD_5 - The BOD_5 concentrations in Regulation 62 are the most stringent effluent limits and are therefore applied. These limitations are the same as those contained in the previous permit and are imposed upon the effective date of this permit.

Total Suspended Solids (TSS) - The TSS concentrations in Regulation 62 are the most stringent effluent limits and are therefore applied. These limitations are the same as those contained in the previous permit and are imposed upon the effective date of this permit.

According to Section 62.5(2) of the Regulations for Effluent Limitations "Where the permittee has demonstrated that the treatment facility is unable to meet the 85% removal requirement for a parameter and the inability to meet the requirement is not caused by excessive infiltration, as defined in 40 CFR 35.2005(b)(16), a lower percent removal requirement or a mass loading limit may be substituted provided that the permittee can demonstrate that the provisions of 40 CFR 133.103(d) can be met (note that these provisions echo those set out by the Regulations for Effluent Limitations and also indicate that

the facility must essentially be well operated so as to be able to meet the proposed effluent limits). According to a previously submitted state-approved study, I/I is more cost effectively treated than removed, thus meeting the definition of nonexcessive I/I as per 40 CFR 35.2005(b)(28). Furthermore, the effluent data set forth in Table V-1 indicate that the facility will be able to comply with the proposed effluent limits. Finally, the most recent Division inspection indicates satisfactory operations. Based on these findings, the Town of Hotchkiss WWTF meets all provisions of 40 CFR 133.103(d) and therefore qualifies for a waiver for the BOD_5 and TSS percent removal. However, as per the regulations, mass loadings for BOD_5 and TSS are included in the permit.

Oil and Grease – The oil and grease limitations from the Regulations for Effluent Limitations are applied as they are the most stringent limitations. This limitation is the same as those contained in the previous permit and is imposed upon the effective date of this permit. In addition, due to the industrial contributors, there is now a quarterly sampling requirement.

pH - This parameter is limited by the water quality standards of 6.5-9.0 s.u., as this range is more stringent than other applicable standards. This limitation is the same as that contained in the previous permit and is imposed upon the effective date of this permit.

E. Coli – The limitation for *E. Coli* is based upon the Antidegradation-based implied existing limit as described in the WQA. A qualitative determination of RP has been made as the treatment facility has been designed to treat specifically for this parameter.

Previous monitoring as shown in Table V-1 indicate that this limitation can be met and is therefore imposed upon the effective date of the permit.

Total Residual Chlorine (TRC) - The limitation for TRC is based upon the WQBEL as described in the WQA. A qualitative determination of RP has been made as chlorine may be used in the treatment process.

Previous monitoring as shown in Table V-1 indicate that this limitation can be met and is therefore imposed upon the effective date of the permit.

Total Inorganic Nitrogen (T.I.N.) - The calculated WQBEL for T.I.N. as set out in the WQA is imposed to protect downstream water supplies. A qualitative determination of RP has been made as the facility is expected to have ammonia, nitrate, and nitrite in the discharge.

This is a new limitation and it is unknown if the permittee can meet the limit and therefore a compliance schedule has been added to the permit to give the permittee time to meet this limitation.

Total Ammonia - The monthly limitations for ammonia are based upon the WQBEL or Antidegradation-based Existing Limit (depending on the month) as described in the WQA. A qualitative determination of RP has been made as the treatment facility has been designed to treat specifically for this parameter.

Previous monitoring as shown in Table V-1 indicate that this limitation can be met and is therefore effective immediately. The Hotchkiss facility has the ability to discharge to Outfall 001A (a ditch) when compliance with the total ammonia limits at Outfall 001B are questionable.

Potentially Dissolved Selenium - The chronic limitation for Se is based upon the WLA set in the Gunnison Se TMDL. The acute WQBEL is not applied as the chronic limitation is protective of the

acute standard. There is no effluent Se data; therefore, an RP analysis could not be performed. Due to the unknown nature of Se in the Hotchkiss effluent, monitoring and reporting will be required prior to the effective date of the permit limit.

Temperature - Based on the information presented in the WQA, this facility is exempt from the temperature requirements based on the flow ratio of 7E3 low flow (25cfs) to design flow of 33:1. Ratios of greater than 10:1 are excluded from temperature limitations based on the Division's Temperature Policy, WQP-23.

Organics – The effluent is not expected or known to contain organic chemicals, and therefore, limitations for organic chemicals are not needed in this permit

Whole Effluent Toxicity (WET) Testing – The Town of Hotchkiss WWTF is a minor facility without significant industrial users. Note that two industrial facilities contribute wastewater into the WWTF. However, the parameters of concern for these types of discharges are already adequately controlled by effluent limitations. There is little potential for other parameters to be present.

Due to the above statements, and in accordance with Section 61.8(2)(b)(i)(B) of the Colorado Discharge Permit System Regulations, the discharge does not have the reasonable potential to cause, or measurably contribute to, an excursion above any narrative standards for water quality. Therefore, WET testing is not a requirement of this permit. However, the Division reserves the right to reopen the permit to include WET testing, should facility conditions change or if new information becomes available.

The permittee should read the WET testing section of Part I of the permit carefully, as this information has been updated in accordance with the Division's updated policy, Implementation of the Narrative Standard for Toxicity in Discharge Permits Using Whole Effluent Toxicity (Sept 30, 2010) . The permit outlines the test requirements and the required follow-up actions the permittee must take to resolve a toxicity incident. The permittee should also read the above mentioned policy which is available on the Permit Section website. The permittee should be aware that some of the conditions outlined above may be subject to change if the facility experiences a change in discharge, as outlined in Part II.A.2. of the permit. Such changes shall be reported to the Division immediately.

C. Parameter Speciation

Dissolved Metals / Potentially Dissolved - For metals with aquatic life-based dissolved standards, effluent limits and monitoring requirements are typically based upon the potentially dissolved method of analysis, as required under Regulation 31, Basic Standards and Methodologies for Surface Water. Thus, effluent limits and/or monitoring requirements for these metals will be prescribed as the "potentially dissolved" form.

VII. ADDITIONAL TERMS AND CONDITIONS

A. Monitoring

Effluent Monitoring – Effluent monitoring will be required as shown in the permit document. Refer to the permit for locations of monitoring points. Monitoring requirements have been established in accordance with the frequencies and sample types set forth in the Baseline Monitoring Frequency, Sample Type, and Reduced Monitoring Frequency Policy for Industrial and Domestic Wastewater

Treatment Facilities. This policy includes the methods for reduced monitoring frequencies based upon facility compliance as well as for considerations given in exchange for instream monitoring programs initiated by the permittee. Table VI-2 shows the results of the reduced monitoring frequency analysis for Permitted Feature 001B based upon compliance with the previous permit. The same frequencies will be used for Permitted Feature 001A as detailed in the permit.

Note that a reduction in monitoring frequency for BOD was revised subsequent to the public notice period as a reporting error (influent for effluent values) was noted for 2 months for this parameter, resulting in violations of the permit limits. The WQCD expects that revised DMRs will be submitted to correct this DMR reporting error.

Table VII-1 – Monitoring Reduction Evaluation

Parameter	*Proposed Permit Limit*	*Average of 30-Day (or Daily Max) Average Conc.*	*Standard Deviation*	*Long Term Characterization (LTC)*	*Reduction Potential*
Effluent Flow (MGD)		*0.19*	*0.07*	*0.33*	*None*
pH (su) Minimum	*min 6.5*	*7.8*	*0.34*	*7.12*	*None*
pH (su) Maximum	*max 9.0*	*8.4*	*0.34*	*9.08*	
E. coli (#/100 ml)	*1920*	*3.1*	*117*	*237.1*	*3 Levels*
TRC (mg/l)	*0.43*	*0.18*	*0.056*	*0.292*	*2 Levels*
NH3 as N, Tot (mg/l)	*7*	*5.2*	*4.1*	*13.4*	*None*
BOD5, effluent (mg/l)	*30*	*11*	*8.4*	*27.8*	*1 Level*
TSS, effluent (mg/l)	*75*	*7.2*	*5*	*17.2*	*3 Levels*
Oil and Grease (mg/l)	*10*	*0*	*0*	*0*	*3 Levels*
TDS PWS intake (mg/l)		*252*	*196*	*644*	*None*
TDS WWTF effluent (mg/l)		*1226*	*136*	*1498*	*None*

B. Reporting

1. Discharge Monitoring Report – The Town of Hotchkiss facility must submit Discharge Monitoring Reports (DMRs) on a monthly basis to the Division. These reports should contain the required summarization of the test results for all parameters and monitoring frequencies shown in Part I.A.2 of the permit. See the permit, Part I.D for details on such submission.

2. Additional Reporting – The Town of Hotchkiss is required to submit a report to the Division regarding the classification of the receiving water of the Outfall 001B discharge. Study – The Town of Hotchkiss is required to study the Outfall 001B location and associated classification of the receiving water. As discussed in Section IV of the WQA, the exact classification of the receiving water of the immediate discharge from the Hotchkiss facility is in question. The Division requests the Town of Hotchkiss to study the site to determine if they are discharging to a wetland adjacent to the River, a tributary to the River, or within the bankfull channel width of the River. The Division will reevaluate this issue in the future.

3. Special Reports – Special reports are required in the event of an upset, bypass, or other noncompliance. Please refer to Part II.A. of the permit for reporting requirements. As above, submittal of these reports to the EPA Region VIII is no longer required.

C. **Signatory and Certification Requirements**

Signatory and certification requirements for reports and submittals are discussed in Part I.D.8. of the permit.

D. Compliance Schedules

The following compliance schedules are included in the permit. See Part I.B of the permit for more information.

Activities to Meet T.I.N. limits –The newly identified water supply use led to the inclusion of the T.I.N. limit. Since this is a new limit for the facility, delayed compliance allows time for the facility operator to evaluate treatment needed to meet the new limit. In order to meet the T.I.N. limit, a compliance schedule for construction (if deemed necessary by the permittee) will be included in the permit.

Selenium - Due to the WLA for Se, a permit limit must be included in the Hotchkiss permit; however, due to the unknown concentration of Se in the discharge, monitoring will be required prior to the effective date of the permit limit.

All information and written reports required by the following compliance schedules should be directed to the Permits Section for final review unless otherwise stated.

E. Economic Reasonableness Evaluation

Section 25-8-503(8) of the revised (June 1985) Colorado Water Quality Control Act required the Division to "determine whether or not any or all of the water quality standard based effluent limitations are reasonably related to the economic, environmental, public health and energy impacts to the public and affected persons, and are in furtherance of the policies set forth in sections 25-8-192 and 25-8-104."

The Colorado Discharge Permit System Regulations, Regulation No. 61, further define this requirement under 61.11 and state: "Where economic, environmental, public health and energy impacts to the public and affected persons have been considered in the classifications and standards setting process, permits written to meet the standards may be presumed to have taken into consideration economic factors unless:

a. A new permit is issued where the discharge was not in existence at the time of the classification and standards rulemaking, or

b. In the case of a continuing discharge, additional information or factors have emerged that were not anticipated or considered at the time of the classification and standards rulemaking."

The evaluation for this permit shows that the Water Quality Control Commission, during their proceedings to adopt the Classifications and Numeric Standards for Gunnison and Lower Dolores River Basins, considered economic reasonableness.

Furthermore, this is not a new discharger and no new information has been presented regarding the classifications and standards. Therefore, the water quality standard-based effluent limitations of this permit are determined to be reasonably related to the economic, environmental, public health and energy impacts to the public and affected persons and are in furtherance of the policies set forth in Sections 25-

8-102 and 104. If the permittee disagrees with this finding, pursuant to 61.11(b)(ii) of the Colorado Discharge Permit System Regulations, the permittee should submit all pertinent information to the Division during the public notice period.

VIII. REFERENCES

A. Colorado Department of Public Health and Environment, Water Quality Control Division Files, for Permit Number CO0044903.

B. Design Criteria Considered in the Review of Wastewater Treatment Facilities, Policy 96-1, Colorado Department of Public Health and Environment, Water Quality Control Commission, April 2007.

C. Basic Standards and Methodologies for Surface Water, Regulation No. 31, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective January 31, 2013.

D. Classifications and Numeric Standards for Gunnison and Lower Dolores River Basins, Regulation No. 35, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective March 30, 2013.

E. Colorado Discharge Permit System Regulations, Regulation No. 61, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective January 30, 2012.

F. Regulations for Effluent Limitations, Regulation No. 62, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective July 30, 2012.

G. Pretreatment Regulations, Regulation No. 63, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective April 1, 2007.

H. Biosolids Regulation, Regulation No. 64, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective March 30, 2010.

I. Colorado River Salinity Standards, Regulation No. 39, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective August 30, 1997.

J. Colorado's Section 303(d) List of Impaired Waters and Monitoring and Evaluation List, Regulation No 93, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective March 30, 2012.

K. Antidegradation Significance Determination for New or Increased Water Quality Impacts, Procedural Guidance, Colorado Department of Public Health and Environment, Water Quality Control Division, effective December 2001.

L. Memorandum Re: First Update to (Antidegradation) Guidance Version 1.0, Colorado Department of Public Health and Environment, Water Quality Control Division, effective April 23, 2002.

M. Determination of the Requirement to Include Water Quality Standards-Based Limits in CDPS Permits Based on Reasonable Potential, Colorado Department of Public Health and Environment, Water Quality Control Division, effective December 2002.

N. The Colorado Mixing Zone Implementation Guidance, Colorado Department of Public Health and Environment, Water Quality Control Division, effective April 2002.

O. Baseline Monitoring Frequency, Sample Type, and Reduced Monitoring Frequency Policy for Domestic and Industrial Wastewater Treatment Facilities, Water Quality Control Division Policy WQP-20, May 1, 2007.

P. Implementing Narrative Standards in Discharge Permits for the Protection of Irrigated Crops, Water Quality Control Division Policy WQP-24, March 10, 2008.

Q. Implementing Narrative Standard for Toxicity in Discharge Permits Using Whole Effluent Toxicity (WET) Testing. Colorado Department of Public Health and Environment, Water Quality Control Division Policy Permits-1, September 30, 2010.

R. Policy for Conducting Assessments for Implementation of Temperature Standards in Discharge Permits, Colorado Department of Public Health and Environment, Water Quality Control Division, Policy Number WQP-23, effective July 3, 2008.

S. Policy for Permit Compliance Schedules, Colorado Department Public Health and Environment, Water Quality Control Division Policy Number WQP-30, effective December 2, 2010.

T. Procedural Regulations for Site Applications for Domestic Wastewater Treatment Works, Regulation No. 22, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective September 30, 2009.

U. Regulation Controlling discharges to Storm Sewers, Regulation No. 65, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective May 30, 2008.

V. Water and Wastewater Facility Operator Certification Requirements, Regulation No. 100, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective June 30, 2012.

Susan Applegate
May 16, 2013

IX. PUBLIC NOTICE COMMENTS

The public notice period was from May 17, 2013 to June 17, 2013. The Town of Hotchkiss provided comments. Those comments and the associated Division responses follow.

Water Quality Assessment

Table A-4 We would like for the Division to provide the data used to run DFLOW in order to compare that with our data. The town has had a USGS or Water Resources gauge in place since about 1997. For the last few year the gauge has been located farther downstream but is still relevant.

Response: The Water Quality Assessment (WQA) analysis used data from the USGS Gage Station 09135950 (Gunnison River below Leroux Creek, Near Hotchkiss, CO). Figure A-1 locates the Gage in the immediate vicinity just upstream of the Hotchkiss discharge. Published gage data was available from 1997 to 2009. The Division's standard procedure is to use the most recent ten years of published data. In this case, the

most recent ten years was from 1999 through 2009. The Division of Water Resources references Gage NORLUXCO (North Fork Gunnison River below Leroux Creek) as the same gage as the USGS Gage 09135950 with a matching total period of record from 1997 to 2009. The Division acknowledges that more recent data from this gage may be available, however, this data has not been published is not eligible for inclusion in this analysis. Note that the resulting chronic 30E3 low flow from the DFLOW analysis in this permitting action is 29 cfs., higher than the previous chronic low flow calculated in the August 2005 WQA of 27 cfs.

What was the notice for implementing a TMDL for Se? The Town was not notified of the process nor given an opportunity for input.

Response: The public notice process for TMDLs is similar to the permitting process. Public comment was solicited relative to the TMDL over a 45 day period from December 1, 2009 through January 15, 2010. Comments were received from five parties which the Division responded to in the final TMDL.

In addition, the TMDL development process included many stakeholder meetings over a period of multiple years involving the Gunnison Selenium Task Force. The Division's understanding is that the Town of Hotchkiss was involved at least periodically with the Gunnison Selenium Task Force. For further information regarding the TMDL development and process, please contact the WQCD, Restoration and Protection Unit.

Pg 11 - The draft Assessment directs the Town to determine to what the effluent discharges. The answer is that it varies depending on the season and river flow. Each of the three circumstances likely exists at some point in the year. With such a situation, how would the Division propose to write the permit.

Response: The permit renewal application from the Town of Hotchkiss indicates that the discharge is to the North Fork of the Gunnison River. The Division could not verify this claim as the mainstem of the North Fork of the Gunnison River is ¼ mile away from the discharge location. If Hotchkiss discharges to a zero or extremely low flow receiving waterbody during most of the year, then the next renewal permit limits will reflect that condition. The Division is providing time for Hotchkiss to evaluate their current discharge location and receiving waterbody; and to evaluate alternate outfall options, if warranted, for future permitting actions. This could include alternatives such as piping the effluent directly to the mainstem of the North Fork of the Gunnison River to take advantage of the full dilution year-round.

Page 12 mentions that Riverwatch has collected most of the river water quality data. What is the QA/QC for the Riverwatch monitoring.

Response: The Division's Environmental Data Unit coordinates with the Riverwatch program to ensure quality data collection, handling, analysis, and reporting. As with all third party data, the Division uses best professional judgment when assessing and utilizing the data for setting permit limits. Riverwatch maintains a QA/QC program which may be obtained by contacting riverwatch.wildlife@state.co.us.

Note that the Division also used data collected by Hotchkiss including upstream ammonia and E.coli data.

Pg 14 - facility location, 1st sentence - what does above the North Fork of the Gunnison mean?

Response: The word "above" appears to be a typographical error translated from the facility location in the

permit renewal application of "south of the North Fork of the Gunnison.." The Division will correct "above" to "south of" in the final version.

Pg 18 - The Selenium limit based on WQ limits is higher than Se TMDL allocation. Why? Municipalities are only passing thru what comes from ground and drinking water.

Response: The TMDL analysis was conducted in 2010 resulting in the completed and approved TMDL in February 2011. The TMDL utilized the best available data at the time which consisted of the previously calculated chronic low flow of 27 cfs and a background or upstream 85th% concentration of Se of 3.7 µg/L based on data from 1999-2005. The current analysis used the newly calculated low flow of 29 cfs (Table A-4) and more recent data from 2006-2012 for 85th% concentration upstream Se of 0 µg/L (Table A-5). This resulted in a higher WQBEL than the TMDL calculation. The WQBEL in 2013 is different solely based on site conditions changing since the last analysis. However, the TMDL WLA must be implemented in permits, and has been included in this permit. Note that the TMDL does not require reductions from the Hotchkiss discharge in the TMDL analysis.

Pg 19 What is the basis of a seepage of 2.5 cfs/mile? The river at Hotchkiss is significantly different from river at Paonia. For one, the river has been fully diverted and water returned post irrigation uses a number of times between Paonia and Hotchkiss.

The new model for ammonia, presented in table 7 indicates that the receiving stream is able to handle almost twice the ammonia in the discharge, but because of anti-degradation, the limits are left the same as the past permit. It is our understanding that the decision to change the ammonia model was based on science that indicated that the old model was incorrect or inaccurate. We suggest that to allow the Town the additional capacity should be considered a correction for a previous error rather than backsliding.

Response: The seepage rate of 2.5 cfs/mile was incorporated into the AMMTOX model to address the return flows to the river, as also applied to the Paonia discharge permit. The WQCD acknowledges that diversion ditches and irrigation return flow are located between the two facilities. However, since the extent of these impacts on the seepage rate has not been quantified for the area between the two facilities, the seepage rate of 2.5 cfs/miles remains applicable at this time. Should Hotchkiss which to submit data to quantify area seepage rates, this should be submitted with the renewal permit, or a modification request. Note that the ammonia WQBELs are set by the low flows and minimal changes in seepage rates are not likely to effect the permit limitations to any degree.

The change in ammonia modeling from the CAM (Colorado Ammonia Model) to AMMTOX was not due to shortcomings of the model but rather due to a change in the ammonia standard. Errors were not made in this case and do not need correcting.

Table A-10 - The Town would like to request tiered limits for ammonia for April and May as well.

Response: The April flow tier is not warranted as the total ammonia limit of 25 mg/l may easily be met as the max DMR data from 2006-2013 was 13 mg/l. The May flow tier is also not warranted as there was only one excursion of the 30-day average 15 mg/l permit limit in 2010 with a 30-day average concentration DMR value of 16 mg/l total ammonia. The average of the 30-day average concentration DMR values is 3.6 mg/l (see Fact Sheet, Table V-1). The max reported 30-day concentration of total ammonia in May from the previous permit term was 5 mg/l.

Rationale

Pg 7 - The Town's facility includes an anaerobic pit in the upper section of the first cell.

Response: The page 7 reference is unclear. The Division assumes Hotchkiss would like this added to Section IV, D.

Table V-2: Shows an effluent BOD of 101. That is actually the influent BOD. The lab data was incorrectly placed on the DMR. We apologize for the error. We have attached the DMRs and lab sheets which indicate the logging error. We request that this table be updated with the corrected results and that the Division reassess whether the Town would be eligible for quarterly rather than monthly monitoring. If the Division has identified other DMR's with BOD violations, please let us know the dates and we will gladly check the lab results. The Town does not recall having had any BOD violations.

Response: It appears the BOD excursion values resulted from incorrectly reporting on DMRs. The Division will identify the reporting error in the Fact Sheet. The Town of Hotchkiss should correct the DMRs. Please coordinate with the Division's Compliance and Enforcement Unit for further instruction on submitting revised DMRs. The WQCD has revised the reduced monitoring frequency from 'monthly' to 'quarterly' in response to this comment and subsequent data submissions.

Pg 14 - Why is the Division requiring monitoring for Selenium before the effective date of the permit?

Response: Section VI, B, Potentially Dissolved Selenium, indicates monitoring will be required prior to the effective date of the permit limit not the permit itself. The new permit limit of 36.6 µg/l takes effect starting October 1, 2018 (see Page 5 of Permit) with reporting required until that time. This new permit will likely become effective in 2013.

Permit

Pg 6 - Why does the permit require monitoring influent TSS monthly if effluent is quarterly?

Response: Both the influent and effluent TSS monitoring should be monthly and will be corrected in the final permit.

Pg 8 - TIN and Se compliance schedules look to be pretty aggressive. If we happen to already meet the limits, that would be a non issue, but we are concerned that if we need to make plant modifications we will not be able to meet the milestones in the draft permit.

Response: The milestones are standard for these issues and implemented in many permits. The Division will shift the initial milestone by 7 months to better align with the likely date of permit issuance thereby providing a full year of data collection. Based on the findings of each milestone, the Division could modify the compliance schedule to better fit the needs of facility compliance with the permit limits.

Pg 11 - Why is there a reference to coliform not e coli

Response: Part I, Section C, 9, Geometric Mean definition for E. coli includes a subsection i indicating "A minimum of two samples shall be collected for coliform analysis within the next sampling period. " ***E. coli is the type of coliform analysis required in the permit.***

Susan Applegate
June 27, 2013